

WHAT IS CLAIMED IS:

1. A system comprising:

5 a database operable to store retail data, wherein the retail data is accessible in a plurality of formats, each of the formats being compatible with one of a plurality of input modalities;

10 a server operable to output a first page for display on an electronic device, the first page including a first field for receiving a customer request in a selected input modality from among the plurality of input modalities, wherein the server is operable to determine sales information in response to the customer request and based on the retail data; and

a format determination system operable to produce the sales information in each of the plurality of formats,

15 wherein the server is further operable to output a second page for display on the electronic device, the second page associated with the sales information in the plurality of formats and including a second field for responding to the sales information in any one of the input modalities.

2. The system of claim 1 wherein the retail data includes product information related to quantity, location, or description information associated with a product for sale.

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3. The system of claim 2 wherein the customer request includes a request for the product information, and the sales information includes the product information.

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4. The system of claim 3 wherein the sales information includes directions to a route for accessing products for sale.

5. The system of claim 3 wherein the retail data includes customer information related to a purchase history associated with an identified customer, and the sales information includes suggested purchases generated by the server based on the purchase history.

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6. The system of claim 3 wherein the sales information includes pricing information, and the second field is operable to receive financial information for completing a purchase of the product for sale.

5 7. The system of claim 1 wherein the selected input modality is associated with an auto-identification signal.

10 8. The system of claim 7 comprising a mobile container equipped with a reader for reading the auto-identification signal and a transmitter for transmitting the auto-identification signal to the server.

9. The system of claim 8 wherein the server is further operable to track a location of the mobile container, relative to other mobile containers, based on the auto-identification signal.

15 10. The system of claim 1 wherein the selected input modality is associated with voice input, and the first and second pages are associated with Voice Extensible Markup Language (VXML).

20 11. The system of claim 1 wherein the selected input modality is associated with an auto-identification signal using Radio Frequency Identification (RFID).

12. The system of claim 1 wherein the selected input modality includes text-entry, and the first and second pages are associated with Hyper Text Markup Language (HTML).

25 13. The system of claim 1 wherein the electronic device includes a mobile device, a stationary device that is co-located with one of a plurality of products for sale, or an information kiosk.

14. A method comprising:

outputting a first page for display on an electronic device, the first page including a first field for receiving a first customer request;

5 receiving the first customer request in a selected input modality chosen from among a plurality of input modalities available for data entry into the first field;

determining sales information responsive to the customer request;

associating the sales information with each of the plurality of input modalities;

outputting a second page for display on the electronic device, the second page displaying the sales information and including a second field for receiving a second customer request in any one of the plurality of input modalities.

10 15 16. The method of claim 14 wherein receiving the first customer request comprises receiving a request for product information associated with a product for sale, including price, location, or description information.

20 17. The method of claim 14 comprising receiving an auto-identification signal from a mobile container, the auto-identification signal identifying a product for sale, wherein the mobile container is equipped with a reader for reading the auto-identification signal and a transmitter for transmitting the auto-identification signal.

25 18. The method of claim 14 wherein the electronic device includes a mobile device, a stationary device that is co-located with one of a plurality of products for sale, or an information kiosk.

30 19. The method of claim 14 wherein receiving the first customer request comprises receiving a voice input, and wherein the first page is associated with Voice Extensible Markup Language (VXML).

20. The method of claim 14 wherein receiving the first customer request comprises receiving a text input, and wherein the first page is associated with Hyper Text Markup Language (HTML).

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21. The method of claim 14 wherein associating the sales information with each of the plurality of input modalities comprises expressing the sales information in each of a plurality of formats, wherein each of the plurality of formats is associated with one of the plurality of input modalities.

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22. A method of providing product data, the method comprising:
receiving at an electronic device an identifying input in a first modality, the identifying input identifying a product;
requesting automatically, after receiving the identifying input, product information;
providing, from the electronic device, the product information to a user;
receiving at the electronic device additional input in a second modality, the additional input requesting additional product information;
requesting automatically, after receiving the additional input, the additional product information; and
providing, from the electronic device, the additional product information to the user.

23. The method of claim 22 wherein receiving the identifying input in the first modality comprises scanning a bar code associated with the product.

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24. The method of claim 22 wherein providing the product information to the user comprises displaying the product information on a local display.

25. The method of claim 22 further comprising performing the method from a mobile device.

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26. The method of claim 22 wherein the product information includes one or more of descriptive information, availability information, price information, warranty information, review information, promotional information, and competitor information.

5 27. The method of claim 22 further comprising:
receiving payment information for the user; and
selling the product to the user.

10 28. The method of claim 22 wherein receiving input in at least one of the first and second modalities comprises receiving a search string and the method further comprises:
accessing at least a first part of the search string;
searching a first search space for a match for the first part of the search string;
limiting a second search space based on a result of searching the first search space;
accessing at least a second part of the search string; and
15 searching the limited second search space for a match for the second part of the search string.

20 29. The method of claim 22 wherein at least one of the first and second modalities comprises a voice modality and the method further comprises:
accessing a voice input received in the voice modality, the voice input including at least a first part and a second part;
performing voice recognition on the first part of the voice input;
performing voice recognition on a combination of the first part and the second part using a search space; and
25 limiting the search space based on a result from performing voice recognition on the first part of the voice input, wherein limiting the search space allows enhanced voice recognition of the combination compared to performing voice recognition on the unlimited search space.

30 30. The method of claim 22 wherein receiving input in at least one of the first and second modalities comprises:

providing a first set of options to the user, the first set of options relating to a first parameter of a search string, and being provided to the user in a page;

accepting a first input from the user, the first input being selected from the first set of options;

5 limiting a second set of options based on the accepted first input, the second set of options relating to a second parameter of the search string; and

providing the second set of options to the user in the page, such that the user is presented with a single page that provides the first set of options and the second set of options.

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31. The method of claim 22 wherein receiving input in at least one of the first and second modalities comprises:

activating a first grammar from among a plurality of independent grammars, the first grammar being identified with a first input category;

15 deactivating at least a second grammar from among the plurality of independent grammars;

inputting spoken data related to the first input category; and

matching the spoken data to stored data within the first grammar.

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